

AMENDMENTS TO THE CLAIMS

36. (Currently Amended) A method for determining correction values for wheel speeds of a vehicle, comprising the step of:

determining the speeds of the vehicle wheels during travel,

evaluating the speeds of the wheels in groups, for the wheels of the non-driven axle, and for the wheels of the left-hand vehicle side and the right-hand vehicle side to obtain initial correction values for the non-driven axle, for the left-hand vehicle side, and for the right-hand vehicle side based on the speeds of the wheels in the groups,

and determining final correction values for the individual wheels of the vehicle in accordance with the initial non-driven axle, left-hand vehicle side, and right-hand vehicle side correction values obtained in the evaluation step

wherein a preliminary correction value is selected for the slowest wheels on each side of the vehicle, and for the remaining wheel on each side, a preliminary correction value is determined in accordance with the slowest wheel speeds determined on that respective side.

37. (Previously presented) A method according to claim 36, wherein the evaluation in groups is effected for wheel speeds in relation to the wheel speed values determined during a state of travel in which conditions exist that are favorable for the evaluation of the wheel speed values of the group under consideration.

38. (Previously presented) A method according to claim 37, wherein the determined speeds of the vehicle are determined during a straight travel of the vehicle.

39. (Previously presented) A method according to claim 37, wherein the speeds of the vehicle wheels are determined during a disengaged state.

40. (Previously presented) A method according to claim 37, wherein the speeds of the vehicle wheels are determined during a travel state in which the driving moment or the vehicle acceleration is positive and the speed of the wheel on the axle driven is lower than the speed of the wheel on the axle non-driven or during a travel state in which the driving moment or the

vehicle acceleration is negative and the speed of the wheel on the axle driven is higher than the speed of the wheel on the axle non-driven.

41. (Previously presented) A method of claim 38, wherein the wheel speeds used for the evaluation grouped by vehicle sides are determined at different times than the wheel speeds used for the evaluation grouped by vehicle axles.

42. (Previously presented) A method according to claim 36, wherein the evaluation in groups of wheel speeds covers ratio formation or difference formation or pair-wise normalization of the speeds of the wheels of this group.

43. (Previously presented) A method according to claim 36, wherein a correction value is selected for one wheel, wherein in accordance with the results of evaluation, correction values are determined for the rest of the vehicle wheels.

44. Cancelled.

45. (Currently amended) A method according to claim 3644, wherein the correction values are determined from the preliminary values of correction in accordance with the wheel speeds determined on one axle.

46. (Previously presented) A method according to claim 36, wherein the determination of the wheel speed of the vehicle wheel includes sensing the rotating speed of the wheel by means of a wheel sensor and, subsequent filtering of the sensed values.

47. (Previously presented) A method according to claim 38, wherein the straight travel of the vehicle is detected by evaluating the time sequence of the difference of the wheel speeds preferably on the non-actuated axle of the vehicle.

48. (Previously presented) A method according to claim 47, wherein the difference of the wheel speeds includes using a first low pass filter with a first time constant and, in parallel thereto, and using a second low pass filter with a second time constant exceeding the first time

constant, and further including checking whether the amount of difference of the output signals of the two filters is below a threshold value.

49. (Previously presented) A method according to claim 48, wherein the first time constant is in the range of between 10 and 100 s.

50. (Previously presented) A method according to claim 48, wherein the second time constant has a value 5 to 15 times the value of the first time constant.

51. (Previously presented) A method according to claim 48, wherein the threshold value decreases with an increasing vehicle speed.

52. (Previously presented) A method according to claim 48, further including the step of checking whether the amount of difference of the output signals of both filters, within a gating time, permanently or at least for an adequate period of time, falls below the threshold value, and that, once this criterion is fulfilled, straight driving is detected.

53. (Previously presented) A method according to claim 52, further including the step of detecting straight driving, checking the time sequence of the output signal of the second deep pass and determining whether, within a gating time, it permanently or for an adequate period of time, falls below a threshold value.

54. (Previously presented) A method according to claim 48, wherein the evaluation in groups for the wheels of one axle is continuous in that upon detection of straight driving, the output signal of the second low pass filter is stored as a reference value preliminarily representing the result of the evaluation, the reference value is compared to current output signals of the second low pass filter and, in case of differences, the reference value is tracked with part of the difference to the current signal value, with an acknowledgement signal used to release the stored reference value being additionally generated if the difference within a predetermined period of time was sufficiently small.

55. (Currently Amended) A device for determining values of correction for the wheel speeds of a vehicle, comprising:

wheel sensors for determining the speeds of wheels of the vehicle during travel,
determining means for evaluating the speeds of the vehicle wheels in groups for at least one vehicle axle, for a left-hand vehicle side and for a right-hand vehicle side to obtain initial correction values, and

means for determining the final values of correction for the individual wheels of the vehicle in accordance with the initial vehicle axle, left-hand vehicle side and right-hand vehicle side correction values obtained by the determining means for evaluating the speeds of the vehicle wheels

further including state detection means for determining a driving state in which conditions for the wheel speed values of the group under consideration prevail that are favorable for evaluating wheel speeds, in groups

wherein the state detection means further includes detecting means for detecting straight travel of the vehicle

wherein the detecting means for detecting the straight travel of the vehicle further includes at least one low pass filter for evaluating the value of the difference between the wheel speeds of one axle

wherein the detecting means for detecting the straight travel further includes a first low pass filter having a first time constant, and a second low pass filter having a second time constant exceeding the first time constant, and a check means for checking the difference of the output signals of the two filters.

56. (Previously presented) A device according to claim 55, wherein the determining means further includes a means for evaluating, in groups, the speeds of the wheel of the non-driven axle, and respectively one device for evaluating, in groups, the speeds of the wheels on the left-hand vehicle side and the right-hand vehicle side.

57. Cancelled.

58. Cancelled.

59. (Currently amended) A device according to claim 5557, wherein state detecting means further includes detecting means for detecting the disengaged state in the vehicle.

60. (Previously presented) A device according to claim 56, wherein said device for evaluating, in groups, wheel speeds includes a means for forming the ratio or the difference or for the normalization, in pairs, of the speeds of the wheels of the said group.

61. Cancelled.

62. Cancelled.

63. (Currently Amended) A device according to claim 5562, wherein the first time constant is in the range of between 10 and 100 ms.

64. (Currently Amended) A device according to claim 5562, wherein the second time constant has a value 5 to 15 times the first time constant.

65. (Currently Amended) A device according to claim 5562, further including means for checking whether the amount of difference of the output signals of both filters, within a gating time, permanently or at least for an adequate period of time, falls below the threshold value.

66. (Currently Amended) A device according to claim 5562, further including means for checking the time sequence of the output signal of the second deep pass filter.

67. (New) A method for determining correction values for wheel speeds of a vehicle, comprising the step of:

determining the speeds of the vehicle wheels during travel,

evaluating the speeds of the wheels in groups, for the wheels of the non-driven axle, and for the wheels of the left-hand vehicle side and the right-hand vehicle side to obtain initial correction values for the non-driven axle, for the left-hand vehicle side, and for the right-hand vehicle side based on the speeds of the wheels in the groups,

and determining final correction values for the individual wheels of the vehicle in accordance with the initial non-driven axle, left-hand vehicle side, and right-hand vehicle side correction values obtained in the evaluation step

wherein the evaluation in groups is effected for wheel speeds in relation to the wheel speed values determined during a state of travel in which conditions exist that are favorable for the evaluation of the wheel speed values of the group under consideration

wherein the determined speeds of the vehicle are determined during a straight travel of the vehicle

wherein the straight travel of the vehicle is detected by evaluating the time sequence of the difference of the wheel speeds preferably on the non-actuated axle of the vehicle

wherein the difference of the wheel speeds includes using a first filter with a first time constant and, in parallel thereto, and using a second filter with a second time constant exceeding the first time constant, and further including checking whether the amount of difference of the output signals of the two filters is below a threshold value.